REMARKS

In response to the Office Action dated August 18, 2009, Applicants request reconsideration of the above-identified application in view of the following remarks. Claims 1, 3-7, 9-13, 16, 17, and 20 are pending in the application, and are rejected. Claims 21 and 22 are added leaving claims 1, 3-7, 9-13, 16, 17, and 20-22 pending in the application.

Rejections of Claims under §103

In re McLaughlin

The Office Action cited *In re McLaughlin* for the statement that "[a]ny judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning, but so long as it … does not include knowledge gleaned only from applicant's disclosure, such a reconstruction is proper."[1] Applicants respectfully submit that the Office Action has improperly relied on hindsight reconstruction by using knowledge gleaned only from Applicant's disclosure in modifying the applied references.

In re Keller

The Office Action cited *In re Keller* and *In re Merck & Co.* for the statement in *In re Keller* that "one cannot show non-obviousness by attacking references individually."[2] Applicants argue that Frixon, Choi, Koohgoli, and Lopez are non-analogous art, and that Koohgoli and Choi teach away from the combinations.

Claims 1 and 3-5 were rejected under 35 U.S.C. §103(a) as being unpatentable over Koohgoli et al. (U.S. Patent # 5,276,908) in view of Frixon (U.S. Patent # 5,138,456). Applicants respectfully traverse.

Koohgoli relates to dynamic channel allocation and mentions scanning available traffic channels in a wireless communication system with base stations and subscriber terminals. Koohgoli does not show "determining a larger gap between available channels" and "selecting a channel within the larger gap" as is recited in independent claim 1.

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[1] *In re McLaughlin*, 170 USPQ 209, 212 (CCPA 1971).
[2] *In re Keller*, 208 USPQ 871, 882 (CCPA 1981).

Frixon relates to the transmission of video signals between 400 and 800 MHz. Frixon describes a camera that scans the range of frequencies between 400 and 800 MHz and then selects a free channel on which to transmit to a television. The frequency selected is displayed on a display device and a user must adjust a television set to pick up transmissions from the camera. Frixon depends on a human user to tune a television to a frequency selected as a result of a scan. Frixon is very different from Koohgoli, so different that it is non-analogous art.

The Office Action cited *In re Oetiker* in which the Federal Circuit said:

> In order to rely on a reference as a basis for rejection…the reference must either be in the field of the applicant's endeavor or, if not, then be reasonably pertinent to the particular problem with which the inventor was concerned.[3]

> [I]t is necessary to consider…common sense – in deciding in which fields a person of ordinary skill would reasonably be expected to look for a solution to the problem facing the inventor…The combination of elements from non-analogous sources, in a manner that reconstructs the applicant's invention only with the benefit of hindsight, is insufficient to present a *prima facie* case of obviousness.[4]

Applicants respectfully submit that Frixon and Koohgoli are non-analogous art for the same reasons that Koohgoli teaches away from the combination proposed in the Office Action. Koohgoli states that the base station scans available traffic channels, and sends a "subscriber terminal a list of available traffic channels upon which a call would be acceptable." The subscriber terminal scans the channels on the list, and then prioritize its preferences for the base station. Koohgoli states specifically that both the base station and the subscriber terminal must scan the available channels as the channel with the least interference as scanned by the subscriber terminal may not be the channel with the least interference as scanned by the base station.[5] In Koohgoli it is necessary that the base station supply the subscriber terminal with a list of available channels. In contrast, only the camera in Frixon carries out a scan and selects an emission frequency. The television plays no role in selecting the emission frequency in Frixon. One skilled in the art using common sense would not have looked to Frixon to modify Koohgoli

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[3] *In re Oetiker*, 24 USPQ2d 1443, 1445 (Fed. Cir. 1992)
[4] *In re Oetiker*, 24 USPQ2d at 1446.
[5] Koohgoli, column 8, lines 18-29.

because the activity all takes place in the camera, and the selection of the emission frequency is not the result of an interaction between two devices.

Frixon and Koohgoli are not in the same field of endeavor. Frixon relates to the transmission of video signals between a camera and a television between 400 and 800 MHz while Koohgoli relates to a wireless communication system with base stations and subscriber terminals. Frixon is also not reasonably pertinent to the problem with which Koohgoli is concerned for, among other reasons, the television plays no role in selecting the emission frequency in Frixon. Applicants respectfully submit that Frixon and Koohgoli are non-analogous art and Koohgoli teaches away from the combination proposed in the Office Action.

Claims 4 and 5

Both claims 4 and 5 recite "selecting a larger gap at a higher frequency." Neither Frixon nor Koohgoli show this feature, and the Office Action has not pointed to any part of Frixon or Koohgoli showing this feature. Even as combined, Frixon and Koohgoli do not show all of the features recited in claims 4 and 5. The Office Action on pages 4-5 indicates that features recited in rejected claims 4 and 5 were a matter of design choice. *In re Warner* indicates that "[a] rejection based on section 103 clearly must rest on a factual basis." The rejection of the features of claims 4 and 5 is not founded on a factual basis such as a reference, but rather is supported only by speculation called "design choice" contrary to *In re Warner*. The Office Action has not shown all of the claimed features in the applied references. Applicants respectfully request that this rejection be withdrawn.

The Office Action has not identified a factual basis or a rational underpinning that supports a modification of Koohgoli by Frixon, and has instead relied on hindsight reconstruction to reject claims 1 and 3-5. Applicants respectfully submit that a *prima facie* case of obviousness of claims 1 and 3-5 has not been established in the Office Action, and that claims 1 and 3-5 are in condition for allowance.

Claim 6 was rejected under 35 U.S.C. §103(a) as being unpatentable over Koohgoli in view of Frixon and Lopez (U.S. Patent # 7,177,291 B1). Applicants respectfully traverse.

Claim 6 is dependent on independent claim 1, and recites further features with respect to claim 1. For the reasons stated above with respect to claim 1, Applicants respectfully submit that one skilled in the art using common sense would not have looked to Frixon to modify Koohgoli.

Claim 6 recites a "method as claimed in claim 1, further comprising determining whether a collision is detected at the channel selected in said selecting, and, if a collision is detected, selecting a new channel by executing the method again at said scanning." The words "executing the method again at said scanning" in claim 6 refer to the method of claim 1 and the feature "scanning available channels." Lopez does not show this feature.

Lopez shows in Figure 2 a flowchart in which "polling of channels" is repeated until a "desired network channel" is found. Thereafter, no polling occurs in Lopez. If a collision is detected afterwards, the terminal requests a change of frequency.[6] Lopez describes the terminal requesting a change of frequency from the local network N1.[7] Lopez does not return to polling channels after the desired network channel is found even if a collision is detected, as shown in Figure 2. Lopez does not show "executing the method again at said scanning" recited in claim 6. Therefore, even as combined, Koohgoli, Frixon and Lopez do not show all of the features recited in claim 6.

The Office Action states that the Examiner assumes there is an error in FIG. 2 of Lopez and disregards FIG. 2. MPEP 2143.01 indicates that "[i]f the proposed modification or combination of the prior art would change the principle of operation of the prior art invention being modified, then the teachings of the references are not sufficient to render the claims *prima facie* obvious."[8] Applicants respectfully submit that in disregarding FIG. 2 of Lopez the Office Action is changing the principle of operation of Lopez and this application of Lopez cannot support the rejection. The Office Action states that "[a]pplicant should consider the references as a whole."[9] Applicants respectfully submit that in disregarding what Lopez shows in FIG. 2 to arrive at the rejection the Office Action is not considering Lopez as a whole.

Applicants respectfully submit that a *prima facie* case of obviousness of claim 6 has not been established in the Office Action, and that claim 6 is in condition for allowance.

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[6] Lopez, Figure 2.
[7] Lopez, column 3, lines 45-55.
[8] MPEP 2143.01 cites *In re Ratti*, 123 USPQ 349, 352 (CCPA 1959).
[9] Office Action, page 6.

Claims 7 and 9-11 were rejected under 35 U.S.C. §103(a) as being unpatentable over Choi et al. (U.S. Patent # 7,206,840 B2) in view of Frixon. Applicants respectfully traverse.

Choi relates to dynamic frequency selection and describes "monitoring of channels" which includes "(1) channel measurement by AP; (2) request for channel measurement by AP; and, (3) measurement report by STAs."[10] Choi describes channel measurements by both the AP and the STAs. The AP then "determines a new channel that is used for communication between the AP and the STAs."[11]

Choi does not show "determining a larger gap between available channels" and "selecting a channel within the larger gap" as is recited in independent claim 7.

Frixon relates to the transmission of video signals between 400 and 800 MHz. Frixon describes a camera that scans the range of frequencies between 400 and 800 MHz and then selects a free channel on which to transmit to a television. The frequency selected is displayed on a display device and a user must adjust a television set to pick up transmissions from the camera. Frixon depends on a human user to tune a television to a frequency selected as a result of a scan. Frixon is very different from Choi, so different that it is non-analogous art. One skilled in the art using common sense would not have looked to Frixon to modify Choi.

Applicants respectfully submit that Frixon and Choi are non-analogous art for the same reasons that Choi teaches away from the combination proposed in the Office Action. Choi describes that both the AP and the STAs make channel measurements. In contrast, only the camera in Frixon carries out a scan and selects an emission frequency. The television plays no role in selecting the emission frequency in Frixon. One skilled in the art using common sense would not have looked to Frixon to modify Choi because the activity all takes place in the camera, and the selection of the emission frequency is not the result of an interaction between two devices.

Frixon and Choi are not in the same field of endeavor. Frixon relates to the transmission of video signals between a camera and a television between 400 and 800 MHz while Choi relates to dynamic frequency selection with channel measurements by both the AP and the STAs. Frixon is also not reasonably pertinent to the problem with which Choi is concerned for, among

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[10] Choi, column 4, lines 20-23.
[11] Choi, column 7, lines 63-65.

other reasons, the television plays no role in selecting the emission frequency in Frixon. Applicants respectfully submit that Frixon and Choi are non-analogous art and Choi teaches away from the combination proposed in the Office Action.

Claims 10 and 11

Both claims 10 and 11 recite "selecting a larger gap at a higher frequency." Neither Frixon nor Choi show this feature, so, even as combined, Frixon and Choi do not show all of the features recited in claims 10 and 11. The Office Action on page 8 indicates that features recited in rejected claims 10 and 11 were a matter of design choice. *In re Warner* indicates that "[a] rejection based on section 103 clearly must rest on a factual basis." The rejection of the features of claims 10 and 11 is not founded on a factual basis such as a reference, but rather is supported only by speculation called "design choice" contrary to *In re Warner*.

The Office Action has not identified a factual basis or a rational underpinning that supports a modification of Choi by Frixon, and has instead relied on hindsight reconstruction to reject claims 7 and 9-11. Applicants respectfully submit that a *prima facie* case of obviousness of claims 7 and 9-11 has not been established in the Office Action, and that claims 7 and 9-11 are in condition for allowance.

Claim 12 was rejected under 35 U.S.C. §103(a) as being unpatentable over Choi in view of Frixon further in view of Lopez. Applicants respectfully traverse.

One skilled in the art using common sense would not have looked to Frixon to modify Choi for the reasons stated above with respect to claim 7.

Furthermore, claim 12 recites an "article as claimed in claim 7, wherein the instructions when executed further result in dynamic frequency selection in a wireless local area network by determining whether a collision is detected at the channel selected in said selecting, and, if a collision is detected, selecting a new channel by executing the method again at said scanning." The words "executing the method again at said scanning" in claim 12 refer to the article of claim 7 and the feature "scanning available channels." Lopez does not show this feature.

Lopez shows in Figure 2 a flowchart in which "polling of channels" is repeated until a "desired network channel" is found. Thereafter, no polling occurs in Lopez. If a collision is

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detected afterwards, the terminal requests a change of frequency.[12] Lopez describes the terminal requesting a change of frequency from the local network N1.[13] Lopez does not return to polling channels after the desired network channel is found even if a collision is detected, as shown in Figure 2. Lopez does not show "executing the method again at said scanning" recited in claim 12. Therefore, even as combined, Choi, Frixon and Lopez do not show all of the features recited in claim 12.

The Office Action referred to the rejection of claim 6 in which the Examiner assumes there is an error in FIG. 2 of Lopez and disregards FIG. 2. Applicants respectfully submit that in disregarding FIG. 2 of Lopez the Office Action is changing the principle of operation of Lopez and this application of Lopez cannot support the rejection.

Applicants respectfully submit that a *prima facie* case of obviousness of claim 12 has not been established in the Office Action, and that claim 12 is in condition for allowance.

Claims 13 and 16 were rejected under 35 U.S.C. §103(a) as being unpatentable over Choi in view of Sugar et al. (U.S. Patent # 7,248,604 B2) and Frixon. Applicants respectfully traverse.

Choi relates to dynamic selection of a channel between an access point and a plurality of stations. Sugar relates to a wireless communications network. Neither Choi nor Sugar show "selecting a larger gap at a higher frequency" and "selecting a channel from a channel indicated as available within the larger gap at a higher frequency," of the features recited in independent claim 13.

Frixon relates to the transmission of video signals and describes selecting "an emission frequency located substantially in the middle of the largest interval separating two channels." Frixon, column 4, lines 38-44. Frixon does not show "selecting a channel from a channel indicated as available within the larger gap at a higher frequency" as is recited in independent claim 13. Therefore, even as combined, Choi, Sugar, and Frixon do not show all of the features recited in claim 13.

Frixon only relates to the transmission of video signals between 400 and 800 MHz. Furthermore, Frixon describes a camera that scans the range of frequencies between 400 and 800

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[12] Lopez, Figure 2.
[13] Lopez, column 3, lines 45-55.

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MHz and then selects a free channel on which to transmit to a television. The frequency selected is displayed on a display device and a user must adjust a television set to pick up transmissions from the camera. Frixon depends on a human user to tune a television to a frequency selected as a result of a scan. Frixon is very different from both Choi and Sugar, so different that it is non-analogous art. One skilled in the art using common sense would not have looked to Frixon to modify Choi or Sugar.

The Office Action on page 10 indicated that features recited in rejected claims 13 and 16 were a matter of design choice. *In re Warner* indicates that "[a] rejection based on section 103 clearly must rest on a factual basis." The rejection of the features of claims 13 and 16 is not founded on a factual basis such as a reference, but rather is supported only by speculation called "design choice" contrary to *In re Warner*. Applicants respectfully request that this rejection be withdrawn.

The Office Action has not identified a factual basis or a rational underpinning that supports this combination of references, and has instead relied on hindsight reconstruction to reject claims 13 and 16. Applicants respectfully submit that a *prima facie* case of obviousness of claims 13 and 16 has not been established in the Office Action, and that claims 13 and 16 are in condition for allowance.

Claims 17 and 20 were rejected under 35 U.S.C. §103(a) as being unpatentable over Choi in view of Sugar, Pope, Jr. et al. (U.S. Patent # 6,654,616 B1) and Frixon. Applicants respectfully traverse.

Choi relates to dynamic selection of a channel between an access point and a plurality of stations. Sugar relates to a wireless communications network. Pope relates to a wireless area network. Neither Choi nor Sugar nor Pope show "selecting a larger gap at a higher frequency" and "selecting a channel from a channel indicated as available within the larger gap at a higher frequency" of the features recited in independent claim 17.

As stated above with respect to claims 13 and 16, Frixon does not show "selecting a channel from a channel indicated as available within the larger gap at a higher frequency" as is recited in independent claim 17. Therefore, even as combined, Choi, Sugar, Pope, and Frixon do not show all of the features recited in claim 17.

As stated above with respect to claims 13 and 16, Frixon is non-analogous art.

The Office Action on page 11 indicated that features recited in rejected claims 17 and 20 were a matter of design choice. *In re Warner* indicates that "[a] rejection based on section 103 clearly must rest on a factual basis." The rejection of the features of claims 17 and 20 is not founded on a factual basis such as a reference, but rather is supported only by speculation called "design choice" contrary to *In re Warner*. Applicants respectfully request that this rejection be withdrawn.

The Office Action has not identified a factual basis or a rational underpinning that supports this combination of references, and has instead relied on hindsight reconstruction to reject claims 17 and 20. Applicants respectfully submit that a *prima facie* case of obviousness of claims 17 and 20 has not been established in the Office Action, and that claims 17 and 20 are in condition for allowance.

New Claims

Claims 21 and 22 are new. Support for the new claims may be found in the specification, such as at paragraph [0001]. Applicants believe that no new matter has been introduced in the added claims. Additionally, Applicants respectfully submit that the new claims are patentably distinct over the references currently cited as a basis of rejection by virtue of the recited features such as a radar system. Accordingly, Applicants respectfully request that the Examiner consider and allow the newly added claims.

CONCLUSION

Applicants respectfully submit that all of the pending claims are in condition for allowance, and such action is earnestly solicited. The Examiner is invited to telephone the below-signed attorney at 612-373-6973 to discuss any questions which may remain with respect to the present application.
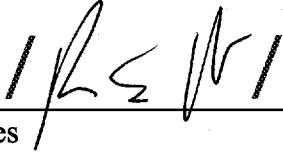
If necessary, please charge any additional fees or deficiencies, or credit any overpayments to Deposit Account No. 19-0743.

Respectfully submitted,

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Date 18 November 2009   By _____

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CERTIFICATE UNDER 37 CFR 1.8: The undersigned hereby certifies that this correspondence is being filed using the USPTO's electronic filing system EFS-Web, and is addressed to: Mail Stop Amendment, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450 on this _18th__ day of November, 2009.

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Name   Signature